Claims

1. A service parameter interworking method adapted to achieve a service parameter exchange between a network using a circuit-oriented protocol (PLMN, ISDN, GSM) and a network using a packet-oriented protocol (IP, ATM), comprising the steps:

   - receiving circuit-switched service parameters from the network using the circuit-oriented protocol or packet-switched service parameters from the network using the packet-oriented protocol at an interworking node (10);

   - mapping said circuit-switched service parameters into corresponding packet-switched parameters or vice versa in said interworking node (10); and

   - forwarding payload data between the different networks using a mapping result.

2. The method of claim 1, wherein

   - said circuit-switched service parameters define a circuit-switched transmission of data and a circuit-switched signalling and

- said packet-switched service parameters define a packet-switched transmission of data and a packet-switched signalling.

3. The method of claim 1, wherein

- said circuit-switched service parameters define a packet-switched transmission of data and a circuit-switched signalling and

- said packet-switched service parameters define a packet-switched transmission of data and a packet-switched signalling.

4. The method of claim 2, wherein

circuit-switched service parameters defining said circuit-switched signalling define multi-level service information (MLPP, eMLPP) and/or bearer capability information (GSM, ISUP).

5. The method of claim 3, wherein

circuit-switched service parameters defining said circuit-switched signalling define multi-level service information (MLPP, eMLPP) and/or bearer capability information (GSM, ISUP).

6. The method of claim 4, wherein said multi-level service information (MLPP, eMLPP) comprises:

- precedence information to assign a priority to a call and/or

- pre-emption information for a seizure of resources by a higher level precedence call in the absence of idle resources.

7. The method of claim 5, wherein said multi-level service information (MLPP, eMLPP) comprises:

- precedence information to assign a priority to a call and/or

- pre-emption information for a seizure of resources by a higher level precedence call in the absence of idle resources.

8. A service parameter interworking method adapted to achieve a service parameter exchange between a network using a circuit-oriented protocol (PLMN, ISDN, GSM) and a network using a packet-oriented protocol (IP, ATM), comprising the steps:

- receiving circuit-switched service parameters from the network using the circuit-oriented protocol or packet-switched service parameters from the network using the packet-oriented protocol at an interworking node (10);

- mapping said circuit-switched service parameters into corresponding packet-switched parameters or vice versa in said interworking node (10); and

- forwarding payload data between the different networks using a mapping result; wherein

- said circuit-switched service parameters define a circuit-switched transmission of data and a circuit-switched signalling,

- said packet-switched service parameters define a packet-switched transmission of data and a packet-switched signalling, and

- said circuit-switched service parameters are mapped to said packet-switched service parameters for service differentiation in the network using the packet-oriented protocol through bit settings in a service differentiation field (DS) of data packets.

9. The method of claim 8, wherein

said service differentiation field (DS) is a Traffic Class Octet according to IPv6 or a Type of Service Field according to IPv4.

10. A service parameter interworking method adapted to achieve a service parameter exchange between a network using a circuit-oriented protocol (PLMN, ISDN, GSM) and a network using a packet-oriented protocol (IP, ATM), comprising the steps:

- receiving circuit-switched service parameters from the network using the circuit-oriented protocol or packet-switched service parameters from the network

using the packet-oriented protocol at an interworking node (10);

- mapping said circuit-switched service parameters into corresponding packet-switched parameters or vice versa in said interworking node (10); and

- forwarding payload data between the different networks using a mapping result; wherein

- said circuit-switched service parameters define a packet-switched transmission of data and a circuit-switched signalling,

- said packet-switched service parameters define a packet-switched transmission of data and a packet-switched signalling, and

- said circuit-switched service parameters are mapped to said packet-switched service parameters for service differentiation in the network using the packet-oriented protocol through bit settings in a service differentiation field (DS) of data packets.

11. The method of claim 10, wherein

said service differentiation field (DS) is a Traffic Class Octet according to IPv6 or a Type of Service Field according to IPv4.

12. The method of claim 11, wherein

circuit-switched service parameters defining said circuit-switched signalling define multi-level service information (MLPP, eMLPP) and/or bearer capability information (GSM, ISUP).

13. A service parameter interworking method adapted to achieve a service parameter exchange between a network using a circuit-oriented protocol (PLMN, ISDN, GSM) and a network using a packet-oriented protocol (IP, ATM), comprising the steps:

- receiving circuit-switched service parameters from the network using the circuit-oriented protocol or packet-switched service parameters from the network using the packet-oriented protocol at an interworking node (10);

- mapping said circuit-switched service parameters into corresponding packet-switched parameters or vice versa in said interworking node (10); and

- forwarding payload data between the different networks using a mapping result; wherein

- said circuit-switched service parameters define a circuit-switched transmission of data and a circuit-switched signalling,

- said packet-switched service parameters define a packet-switched transmission of data and a packet-switched signalling, and

- said circuit-switched service parameters are mapped to said packet-switched service parameters for service differentiation in the network using the packet-oriented protocol through resource reservation (RSVP).

14. A service parameter interworking method adapted to achieve a service parameter exchange between a network using a circuit-oriented protocol (PLMN, ISDN, GSM) and a network using a packet-oriented protocol (IP, ATM), comprising the steps:

- receiving circuit-switched service parameters from the network using the circuit-oriented protocol or packet-switched service parameters from the network using the packet-oriented protocol at an interworking node (10);

- mapping said circuit-switched service parameters into corresponding packet-switched parameters or vice versa in said interworking node (10); and

- forwarding payload data between the different networks using a mapping result; wherein

- said circuit-switched service parameters define a packet-switched transmission of data and a circuit-switched signalling,

- said packet-switched service parameters define a packet-switched transmission of data and a packet-switched signalling, and

- said circuit-switched service parameters are mapped to said packet-switched service parameters for service differentiation in the network using the packet-oriented protocol through resource reservation (RSVP).

15. A service parameter interworking method adapted to achieve a service parameter exchange between a network using a circuit-oriented protocol (PLMN, ISDN, GSM) and a network using a packet-oriented protocol (IP, ATM), comprising the steps:

- receiving circuit-switched service parameters from the network using the circuit-oriented protocol or packet-switched service parameters from the network using the packet-oriented protocol at an interworking node (10);

- mapping said circuit-switched service parameters into corresponding packet-switched parameters or vice versa in said interworking node (10); and

- forwarding payload data between the different networks using a mapping result; wherein

- said circuit-switched service parameters define a packet-switched transmission of data and a circuit-switched signalling,

- said packet-switched service parameters define a packet-switched transmission of data and a packet-switched signalling, and

- said circuit-switched service parameters are mapped to said packet-switched service parameters for service differentiation in the network using the packet-oriented protocol through protocol label switching (MPLS).

16. A service parameter interworking method adapted to achieve a service parameter exchange between a network using a circuit-oriented protocol (PLMN, ISDN, GSM) and a network using a packet-oriented protocol (IP, ATM), comprising the steps:

- receiving circuit-switched service parameters from the network using the circuit-oriented protocol or packet-switched service parameters from the network using the packet-oriented protocol at an interworking node (10);

- mapping said circuit-switched service parameters into corresponding packet-switched parameters or vice versa in said interworking node (10); and

- forwarding payload data between the different networks using a mapping result; wherein

- said circuit-switched service parameters define a circuit-switched transmission of data and a circuit-switched signalling,

- said packet-switched service parameters define a packet-switched transmission of data and a packet-switched signalling, and

- said circuit-switched service parameters are mapped to said packet-switched service parameters for service differentiation in the network using the packet-oriented protocol through protocol label switching (MPLS).

17. A service parameter interworking method adapted to achieve a service parameter exchange between a network using a circuit-oriented protocol (PLMN, ISDN, GSM) and a network using a packet-oriented protocol (IP, ATM), comprising the steps:

- receiving circuit-switched service parameters from the network using the circuit-oriented protocol or packet-switched service parameters from the network using the packet-oriented protocol at an interworking node (10);

- mapping said circuit-switched service parameters into corresponding packet-switched parameters or vice versa in said interworking node (10); and

- forwarding payload data between the different networks using a mapping result, wherein

- the mapping of said circuit-switched service parameters into corresponding packet-switched service parameters in said interworking node (10) is carried out using at least one mapping table.

18. A service parameter interworking method adapted to achieve a service parameter exchange between a network using a circuit-oriented protocol (PLMN, ISDN, GSM) and a network using a packet-oriented protocol (IP, ATM), comprising the steps:

- receiving circuit-switched service parameters from the network using the circuit-oriented protocol or packet-switched service parameters from the network using the packet-oriented protocol at an interworking node (10);

- mapping said circuit-switched service parameters into corresponding packet-switched parameters or vice versa in said interworking node (10); and

- forwarding payload data between the different networks using a mapping result, wherein

- a mapping of said circuit-switched service parameters into corresponding packet-switched service parameters in said interworking node (10) is modifiable during an ongoing payload data forwarding.

19. The method of claim 18, wherein

said mapping of said circuit-switched service parameters into corresponding packet-switched service parameters in said interworking node (10) is carried out using at least one mapping table.

20. A service parameter interworking method adapted to achieve a service parameter exchange between a network using a circuit-oriented protocol (PLMN, ISDN, GSM) and a network using a packet-oriented protocol (IP, ATM), comprising the steps:

- receiving circuit-switched service parameters from the network using the circuit-oriented protocol or packet-switched service parameters from the network using the packet-oriented protocol at an interworking node (10);

- mapping said circuit-switched service parameters into corresponding packet-switched parameters or vice versa in said interworking node (10); and

- forwarding payload data between the different networks using a mapping result,

- further comprising a step of negociation mapping conditions before said actual mapping starts.

21. A computer system adapted to achieve a service parameter exchange between a network using a circuit-oriented protocol (PLMN, ISDN, GSM) and a network using a packet-oriented protocol (IP, ATM), comprising:

- a storage node (12) for storing a relation between circuit-switched service parameters for the network using the circuit-oriented protocol and packet-switched service parameters for the network using the packet-oriented protocol; and

- an interworking node (14) for mapping said circuit-switched service parameters into corresponding packet-switched service parameters or vice versa.

22. The computer system of claim 21, wherein

said interworking node (14) is further adapated to forward payload data between the different networks using said generated mapping result.

23. The computer system of claim 21, wherein

said storage node (12) is connected to a parameter support node (16) for configuration and supply of mapping data.

24. The computer system of claim 23, wherein

said parameter support node (16) is provided as stand alone remote operation maintenance node.

25. The computer system of claim 23, wherein

said parameter support node (16) is realized with a data base system.

26. The computer system of claim 23, wherein

said parameter support node (16) is realized with an expert system.

27. A computer program product directly loadable into an internal memory of a digital computer comprising software code portions for performing a

- service parameter interworking method adapted to achieve a service parameter exchange between a network using a circuit-oriented protocol (PLMN, ISDN, GSM) and a network using a packet-oriented protocol (IP, ATM), comprising the steps:

- receiving circuit-switched service parameters from the network using the circuit-oriented protocol or packet-switched service parameters from the network using the packet-oriented protocol at an interworking node (10);

- mapping said circuit-switched service parameters into corresponding packet-switched parameters or vice versa in said interworking node (10); and

- forwarding payload data between the different networks using a mapping result.

28. The computer program product of claim 27 stored on a computer usable medium.